IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Attorney Docket No. 2006_0354A
Kazuyuki YAMANE et al.	:	**Confirmation No. 7141**
Serial No. 10/573,565	:	Group Art Unit 1744
Filed March 27, 2006	:	Examiner John P. Robitaille
METHOD FOR PRODUCING MULTILAYER STRETCH-MOLDED ARTICLE	:	**Mail Stop: AMENDMENT**

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, the undersigned, Ryo KATO, hereby declare as follows:

1. I am a citizen of Japan and a resident of 1-13-26 Ashidai, Ishioka-city, Ibaraki-prefecture, Japan.

2. In March 2001, I received my Master of Engineering degree in polymer engineering from Graduate School of Chiba University, Japan. In September 2008, I received my Ph.D degree from the Faculty of Science and Engineering of Manchester Metropolitan University, United Kingdom, based on a doctoral thesis, entitled: "Interfacial Interactions in Polymer Layered Silicate Nanocomposites."

3. Since April 2001, I have been employed at Kureha Corporation (formerly, Kureha Chemical Industry Company, Limited). I have conducted research and development in the field of, among others, polyglycolic acid (PGA) in Research Center of Kureha Corporation from 2001 to 2006 and in Polymer Processing & Products Research Laboratory of Kureha Corporation from 2008 to the present. I am an inventor of, among others, U.S. Patent No. 7,799,837 directed to production and application of polyglycolic acid.

4. I am one of the applicants of the above-identified application Serial No. 10/573,565 (hereinafter referred to as the present application) and accordingly I am familiar with

the specification and claims of the present application. I have also read carefully and am familiar with the Office Action dated October 28, 2010, and the references, including Kawakami et al. (U.S. Patent No. 5,853,639), relied upon by the Examiner in rejecting the claims of the present application.

5. In order to support the patentability of the presently claimed invention, I present below a Test Report.

TEST REPORT

The following data of temperature-dependent half-crystallization time of glycolic acid (PGA) resin from the amorphous (quenched) state of PGA (i.e., a half of the time until a polarized light transmittance is saturated, meaning a substantially full crystallization at a specified temperature), was gathered based on experiments conducted by me or under my direction and control.

Temperature (℃)	Half crystallization time (sec.)
70	250
80	108.6
100	19.98
120	9.73
140	6.56
160	4.6
180	3.7

As disclosed above, the half-crystallization time of PGA at 70℃ is 250 sec. Accordingly, a substantial degree of crystallization cannot occur at the preferred stretching temperatures of 30 – 58℃ (C15L21) or 42 – 44℃ (in Examples) of the Kawakami et al. reference even if an unrealistically long time is taken before the stretching.

Thus, the general practice in the art before the present invention, including the teachings of the Kawakami et al. reference, was to perform the stretching of a crystalline polymer including PGA **before** a substantial degree of crystallization occurred in the polymer since crystallization was known to result in a harmful opaque state and difficulty in stretching of the polymer.

In contrast, in Examples of the present invention, a laminate including a layer of PGA (Tc1= 90℃ as described at page 14, line 8) was heated up to 97℃(Example 1) or 105℃ (Example 2), exceeding Tc1, in 20 sec. and then held at that temperature for an additional 20 sec. to positively crystallize the PGA layer to provide an opacity of well above 40 %. This is based on a rather unexpected discovery that even if a PGA layer in a laminate is substantially crystallize to be opaque as a heat treatment before stretching, co-stretching of the laminate with another thermoplastic resin can be smoothly performed while achieving a clarification of the PGA layer, which does not obstruct the formation of a transparent film, and contributes to an

improvement in gas-barrier property, as discussed on pages 3 to 4 of the specification of the present application.

6. I further declare that all statements made herein of my own knowledge are true, and that all statements on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: January 25, 2011

Ryo KATO